

Abstracts

This section of the JOURNAL is published in collaboration with the two abstracting journals, ABSTRACTS OF WORLD MEDICINE and OPHTHALMIC LITERATURE, published by the British Medical Association. The abstracts are divided into the following sections:

*Syphilis (Clinical, Therapy, Serology, Biological False Positive Phenomenon, Pathology, Experimental).
Gonorrhoea.
Non-Gonococcal Urethritis and Allied Conditions.*

*Reiter's Disease and Allied Conditions.
Antibiotics and Chemotherapy.
Public Health and Social Aspects.
Miscellaneous.*

After each subsection of abstracts follows a list of articles that have been noted but not abstracted.

Syphilis Clinical

Late Complications of Syphilis. A Comparative Epidemiological and Serological Study of Cardiovascular Syphilis and Various Forms of Neurosyphilis [In English]. AHO, K., SIEVERS, K., and SALO, O. P. (1969). *Acta dermatovenereol. (Stockh.)*, 49, 336. 13 refs. The purpose of this study conducted in the University Central Hospital and the State Serum Institute, Helsinki, was to collect epidemiological data on patients with late symptomatic syphilis and to correlate this with serological findings, in the hope that this would shed more light on the natural history of the disease and help combat its late complications.

The patients studied had clinical signs of cardiovascular or late neurological syphilis and all showed positive standard lipoidal or treponemal tests for syphilis. In the series of 89 males and 74 females, there were 94 with cardiovascular syphilis, 60 with neurosyphilis, and six with both cardiovascular syphilis and neurosyphilis. The majority of those with cardiovascular syphilis had either aneurysm or aortic regurgitation, while two-thirds of the patients with neurosyphilis had tabes dorsalis. The average time (where information was available) from initial infection to diagnosis of late complications was 33 years in cardiovascular syphilis and 34 years in tabes dorsalis.

About one-third of the patients had had some antisyphilitic treatment

before the diagnosis of late complications was made. None of seventeen who had received penicillin had it in the early infectious stage of the disease; four of these had tabes dorsalis and thirteen cardiovascular lesions. In six instances penicillin had been given for conditions other than syphilis.

The distribution of the VDRL titres in different diagnostic groups showed marked variation. Patients with tabes dorsalis frequently had lower titres than those with cardiovascular syphilis and general paralysis. No connection between age or sex and titre level was found. A high degree of correlation existed between the VDRL titre and the titre of the quantitative Reiter protein complement-fixation test (RPCFT) in the 91 cases in which the latter was performed.

The authors note that because of limitations in the selection of the study group there must be reservations in any conclusions drawn. Certain features emerge which may reflect a changing situation with regard to late syphilis. In the series reported males and females were roughly equal in numbers, whereas previous studies have indicated a greater frequency of late lesions in untreated syphilis in males than in females. It is considered that the present series reflects the number untreated rather than the total number infected, and the inference is that more males than females escape diagnosis and treatment.

The study suggests that previous treatment may markedly reduce VDRL titres and that there is a high degree of correlation between the VDRL titres and the RPCFT titres in both treated and untreated late symptomatic syphilis. This correlation is not, according to previous studies, present in early syphilis and these findings may help towards understanding the stimuli necessary to produce these antibodies.

Leslie Watt

Alcoholic Lymphalgia in Early Syphilis. WRIGHT, D. J. M. (1969). *Postgrad. med. J.*, 45, 191. 9 refs. Pain occurring in affected lymph nodes in Hodgkin's disease, other reticuloses and various malignant diseases is well known. However, it has rarely been reported in inflammatory disease. The case is described of a 35-year-old Jamaican serviceman who had recently been treated for darkfield positive early syphilis. Treponemes had been found in material obtained by inguinal node puncture. He subsequently complained that for one month he had developed severe pain in the inguinal and cervical nodes after drinking alcohol. The pain had a short latent interval and lasted for one hour. Examination showed that he had enlarged inguinal and cervical nodes. Inguinal node biopsy showed exuberant non-specific reactive changes with preservation of the normal architecture. White blood count was normal, LGVCF and Frei tests were

negative. The RPCF, VDRL, and FTA tests were positive and the TPI doubtful. A diagnosis of relapsed early syphilis was made, and he was given 2.4 mega units of benzathine penicillin which rapidly relieved the alcohol intolerance. He was then lost to follow-up.

[It is not stated whether treponemes were looked for in the enlarged nodes at the time of his alcohol intolerance.]

P. Rodin

Cutaneous Gumma - A Contemporary Disease.

EAGLESTEIN, W. H., and KELLY, E. C. (1969). *Sth. med. J. (Bgham, Ala.)*, **62**, 976. 3 figs, 5 refs

Syphilitic Infection Today in Relation to Cardiovascular Disease (L'infection syphilitique actuelle en rapport avec les manifestations cardio-vasculaires).

NASTASE, G., and MUNTEANU, M. (1968). *Arch. Un. méd. balkan.*, **6**, 877. 1 fig.

Syphilitic Gumma of the Nasal Vestibule [In Portuguese].

SA MENEZES, C. (1969). *Trab. Soc. port. Derm.*, **27**, 82. 1 fig.

Sarcoid Granuloma in Secondary Syphilis.

LANTIS, L. R., PETROZZI, J. W., and HURLEY, H. J. (1969). *Arch. Derm.*, **99**, 748. 7 figs, 12 refs

Lues Maligna. FISHER, D. A., CHANG, L. W., and TUFFANELLI, D. L. (1969). *Arch. Derm.*, **99**, 70. 4 figs, 18 refs

Syphilis Therapy

Corticosteroid Therapy combined with Antisyphilitic Treatment; its Effects on the Jarisch-Herxheimer Reaction and on the Elimination of Reagin [In Portuguese].

VIEGAS, L. C., LISBOA, M. S. S., and AGUIAR, S. S. (1969). *J. méd. (Porto)*, **68**, 349

At the General Hospital in Santo Antonio over a period of 10 years 444 patients with various forms of syphilis (187 early, 257 late) were treated with prednisone in addition to antibiotics. 121 patients received prednisone in daily doses of 30 mg. for five consecutive days preceding antisyphilitic treatment, and 323 in daily

doses of 10, 15, or 20 mg. throughout the duration of treatment; 330 patients were treated with penicillin and 114 with other antibiotics. The purpose of the study was to assess the effect of prednisone, firstly in suppressing the Jarisch-Herxheimer (JH) reaction and secondly in accelerating the disappearance of reagin after treatment. The frequency of occurrence of JH reaction was 59.3 per cent. in early syphilis and 31.9 per cent. in late syphilis, which is a reduction of approximately 65 and 15 per cent. in the incidence of the reaction in patients treated with antibiotics only. Prednisone given concurrently with antisyphilitic treatment was relatively more effective than when given in advance of treatment. The rate of disappearance of reagin was determined by the rate of reversal of the Kahn test. Reversal to negativity in the first 3 months was defined as very rapid, and in 6 months as rapid; low Kahn titre at the end of the 6th month was regarded as normal and persistence of a high titre beyond 6 months as retarded reversal. Very rapid and rapid results were recorded in 56.6 per cent. of patients with early syphilis and 39.2 per cent. of patients with late syphilis, mostly in groups treated with 15 and 20 mg. prednisone daily (68.4 and 80.0 per cent.).

These results confirm that the JH reaction is a clinical manifestation of a reaction between antigen (released from treponemes destroyed by a potent antisyphilitic agent) and antibody (reagin), and that corticosteroids modify the reaction by depressing the formation of reagin; in the majority of cases their action in this respect is inadequate. As at the same time corticosteroids stimulate the proliferation of treponemes, their administration before antisyphilitic treatment is potentially dangerous. After discussing at length the pros and cons of combined corticosteroid and antibiotic therapy, the authors arrive at the conclusion that the hazards of corticosteroids are greater than the uncertain advantage in allaying the JH reaction which, in any case, rarely has serious consequences. For the sole purpose of speeding up the elimination of reagin, corticosteroids may be given after adequate antisyphilitic treatment has been completed.

L. Z. Oller

Effect of Enkorton on the Lukaszewicz-Jarisch-Herxheimer Reaction [In Polish]. BIEN, K., and SUCHANEK, J. (1969). *Przegl. dermat.*, **56**, 305. 7 refs

Sixteen patients with recent early syphilis and four with relapsing secondary syphilis were given Enkorton (prednisone) in three different dosage schedules at the start of penicillin therapy. After the first injection of penicillin the temperature was recorded every hour for 24 hours. Of the sixteen patients with recent early syphilis, five were given 70 mg. (10 mg. hrly, one dose before the first injection of penicillin): four had pyrexia varying from 38.2 to 40°C., and one had no fever; four received 100 mg. (15-20 mg. hrly after the first injection of penicillin): three had a rise in temperature varying from 37.5 to 38.7°C., and one had no fever; seven were given 100 mg. before and 100 mg. (15-20 mg. hrly) after the first injection of penicillin: five had a slight pyrexia below 38°C., and two had no fever. Of the four patients with relapsing secondary syphilis, three were treated with 70 mg. and one 200 mg.: three had a mild febrile response not exceeding 37.6°C. and one had no fever, but it is not stated if he was the one who was given 200 mg.

These results were compared with the results recorded in two groups of patients. The first group consisted of thirteen patients with early syphilis, previously studied, who had received Enkorton in daily doses of 25 mg. for two days before and one day at the start of penicillin therapy: twelve patients reacted with fever ranging from 37.5 to 40.3°C. and two had no fever. The second group consisted of 26 patients with recent early syphilis and ten with relapsing secondary syphilis who were treated with penicillin only: 24 patients with recent and seven with relapsing syphilis had a febrile response (37.2-40.3°C.), and two and three respectively had no fever.

These results indicate that Enkorton cannot prevent JH reaction, but that in large doses (100-200 mg.) it substantially reduces the febrile response. This is consistent with the view that a hypersensitivity reaction of the de-

layed type can only be allayed, but not suppressed, by corticosteroids.

L. Z. Oller

ACTH as a Prophylactic against the Jarisch-Herxheimer Reaction (ACTH als Vorbeugungsmittel gegen die Jarisch-Herxheimer-Reaktion). SYLVESTER, E. (1969). *Z. Haut-u. Geschl.-Kr.*, **44**, 125

Use of Doxycycline in the Treatment of Syphilis [In Portuguese]. PASCHOAL, L. H. C., and CUCE, L. C. (1969). *Hospital (Rio de J.)*, **75**, 1965. 2 refs

Syphilis Serology

Anamnestic Reactions in Syphilis Serology. LASSUS, A., SALO, O. P., and AHO, K. (1969). *Int. Arch. Allergy*, **36**, 394

Screening tests for syphilis (Kahn, VDRL, and Kolmer) were performed on all patients treated for diseases of the skin at the University Central Hospital, Helsinki. Transient positive results were obtained on sera from 82 of some 23,000 patients tested between 1959 and 1967. TPI tests on fifteen of these were found to be positive. Except for a girl aged 13 years, the patients were middle-aged or elderly. Transient sero-positivity was seen most frequently with the VDRL test and was usually of short duration, lasting 2 weeks to 6 months. The reactions reversed to negative without antisyphilitic treatment being given.

Ten of the fifteen patients had a definite or suggestive history of previous syphilis, but this was lacking in the other five. All had had antisyphilitic treatment or antibiotics for other purposes. In seven of the cases there was some recognizable condition, such as infected leg ulcers or light eruptions, which might have provoked a positive response. Transient positive results in lipoidal antigen tests are usually non-specific in nature; when they occur in conditions not usually associated with such false positive reactions, old syphilis should be borne in mind.

A. E. Wilkinson

Fluorescent Treponemal Antibody-Absorption Test (FTA-ABS) in Treated Latent and Late Syphilis [In English]. FORSTRÖM, L., and LASSUS, A. (1969). *Acta derm.-venereol. (Stockh.)*, **49**, 326. 1 fig., 18 refs

The authors of this paper from the Department of Dermatology and Venereology, University Central Hospital, Helsinki, Finland, have compared the sensitivity of the fluorescent treponemal antibody-absorption (FTA-ABS) test with that of some commonly used serological tests for syphilis. The clinical material consisted of 163 patients (23 males and 140 female), 59 of whom had been treated for latent syphilis, 95 for neurosyphilis, and nine for late benign syphilis. All cases had been well documented and the criteria used to determine the original diagnosis were stringent. In addition to clinical and serological findings in symptomatic patients, either syphilis in the partner or congenital syphilis in the children and positive serological tests confirmed the diagnosis of latent infection.

All except seven patients had been treated with long-acting procaine penicillin in oil (average 6-12 mega units); the remaining seven had been treated with heavy metals and/or induced malaria. Some (67) of the penicillin-treated patients had received heavy metals as well and 22 had had malaria therapy. The average post-treatment interval varied between 16 years (latent syphilis), 12 years (neurosyphilis), and 10 years (late benign syphilis). In addition to the FTA-ABS test, comparative serological tests consisted of the Reiter protein complement-fixation (RPCF) test, the Kolmer complement-fixation test, and the VDRL slide test; the TPI test was also used in 148 cases. Technical details of the method of performing the FTA-ABS test are given.

The results indicate that the FTA-ABS test is highly sensitive in treated cases of syphilis. It was positive in 54 (92%) of the 59 cases of latent syphilis and 91 (96%) of the 95 cases of neurosyphilis. The test was also positive in all nine patients treated for late benign syphilis. A total of eighteen patients showed positive FTA-ABS tests in the presence of negative

RPCF and reagin tests and (in 8) negative TPI tests as well. Of the 148 TPI-tested cases, fifteen showed positive FTA-ABS tests and negative TPI tests. In only nine cases was the FTA-ABS test negative when other serological tests were positive. The high sensitivity of the FTA-ABS test justifies its use as a confirmatory test for syphilis, provided that similar specificity is proved.

Leslie Watt

Stability of Syphilitic Antibodies at Different Temperatures

(Conservation des anticorps sériques de la syphilis soumis à différentes températures). VAISMAN, A., and PARIS-HAMELIN, A. (1969). *Bull. Wld Hlth Org.*, **40**, 153

This study extends a previous report from the Institute Alfred Fournier, Paris (Vaisman and Paris-Hamelin, 1966)

Aliquots of a sterile pool of syphilitic sera were stored at -20°, -180°, 4°, 22°, 37°, and 56°C. for varying periods and tested at intervals by the TPI and FTA tests, Kolmer test with Reiter protein and Wassermann antigens, and the Kline, Kahn, and VDRL tests.

Antibody titres were unchanged after a year's storage at -180°C. or -20°C. At 4°C. the tests for reagin showed a 2- to 4-fold drop in titre after 6 months; the TPI titre remained unchanged at 12 months while the FTA titre had fallen to a quarter of its original level at this time. Preservation at 37°C. was much less good but the antitreponemal antibodies were more stable than the antilipoidal antibodies. Sera coagulated during storage at 56°C., tests for antilipoidal antibody became negative after 15-30 days but both the TPI and FTA tests were still positive after 30 days but at a very greatly reduced titre.

Provided that sera are stored in a sterile condition at 4°C. or below, it is thought that valid serological results can be obtained even after a year's preservation.

A. E. Wilkinson

Reference

VAISMAN, A., and PARIS-HAMELIN, A. (1966). *Bull. Wld Hlth Org.*, **34**, 461

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor]

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor]

Study of a Glycolipid Antigen of *Treponema reiteri* and of the Corresponding Antibody in a Human Serum (Etude d'un antigène glycolipidique de *Treponema reiteri* et de l'anticorps correspondant contenu dans un sérum humain). DUPOUEY, P., and BETZ, A. (1969). *Ann. Inst. Pasteur (Paris)*, **117**, 395. 10 refs

Work at the Pasteur Institute, Paris, has shown the presence of a glycolipid antigen in the Reiter treponeme; it is suggested that antibodies to this may be responsible for at least some false positive reactions in serological tests for syphilis in which the Reiter treponeme or its products are used as antigens. Serum from a patient thought not to have syphilis because of lack of history of infection and negative serological tests (cardiolipin, TPI, FTA), but which reacted strongly in complement-fixation and fluorescence tests with Reiter treponemes, was used to examine lipoidal material extracted from the organisms.

The antigen appears to be superficially situated and to be readily removed from the treponemes by washing; it is distinct from cardiolipin. Its presence could be shown by antigen-antibody reactions in complement-fixation or immunofluorescence methods but not by gel diffusion. It, or closely similar material, was found in *T. phagedenis*, but to a much lesser degree in *T. calligyrum* and *T. minutum*, but not in *T. pallidum*. Complement-fixing activity of the patient's serum was abolished by treatment with mercapto-ethanol, suggesting that the antibody concerned is a macroglobulin.

[In a subsequent paper (*C.R. Acad. Sci. (Paris)*, 1969, **269**, 854) evidence is presented that the antigen is a galactolipid with the structure of a 2, 3-di-O-acetyl-1-O-(β D-galactopyranosyl)-D-glycerol.]

A. E. Wilkinson

Serologic Investigations in Narcotic Addicts. I. Syphilis, Lymphogranuloma Venereum, Herpes Simplex, and Q Fever.

CHERUBIN, C. E., and MILLIAN, S. J.

(1968), *Ann. intern. Med.*, **69**, 739. 7 refs

Spirochaetal Agglutination Test in the Serological Diagnosis of Syphilis (Il test di agglutinazione delle spirochete nella diagnostica sierologica della lue). SOLLECITO, A. (1969). *Quad. Sclavo Diagn.*, **5**, 198. 6 refs

Haemagglutination Method for the Diagnosis of Syphilis (Método de hemoaglutinación utilizando el treponema pálido patógeno para el sero-diagnóstico de la sífilis).

RATHLEV, T. (1968). *Rev. Diagn. biol. (Madr.)*, **17**, 303. 1 fig.

Persistence of Fluorescent Treponemal Antibodies [In Polish]. HANCZAKOWSKA, M., and HECZKO, P. (1969). *Przegl. dermatol.*, **56**, 301. 3 figs, 5 refs

Syphilis B.F.P. Phenomenon

False-positive Serological Tests for Syphilis in Pregnancy [In English]. SALO, O. P., AHO, K., NIEMINEN, and HORMILA, P. (1969). *Acta dermat.-venereol. (Stockh.)*, **49**, 332. 1 fig., 14 refs

Biological false positive serological reactions for syphilis are often encountered in the collagen diseases, notably systemic lupus erythematosus (SLE), and it has been reported that these reactions can precede the development of manifest SLE by many years. To assess the significance of such reactions as a warning of impending autoimmune disorders the authors have reviewed the results of antenatal serological screening tests performed during 1963-67 at the State Serum Institute, Helsinki, Finland. The samples were obtained before the fourth month of pregnancy and 141,043 sera were examined. The VDRL flocculation test was used for screening. When requested by the clinician, treponemal disease was confirmed by the TPI test and later in the study this and the fluorescent treponemal antibody-absorption (FTA-Abs) test were used routinely on all VDRL reactors. A questionnaire was sent to the clinicians looking after every seroreactive patient regarding possible syphilitic infection and other diseases occurring during pregnancy.

The VDRL test was reactive in 232 cases, a mean frequency of 1.64/1,000 during the study period. A total of 108 (46 per cent.) of these patients had a history of past or present syphilis. Tests for treponemal antibodies were performed on sera from 40 patients (38 per cent.) with a history of syphilis and 39 were reactive.

No information regarding syphilis was available on 124 patients (54 per cent.) with VDRL-reactive sera. In 13 (10 per cent.) the reactivity proved to be of a transient nature and this group included one patient with a reactive TPI indicating previous treponemal infection. Treponemal antibody tests were performed on 59 sera showing persistent positive VDRL reactions and 31 (52 per cent.) proved positive. This information was used as a basis for calculating the possible numbers of patients with syphilitic and non-syphilitic (false positive) reactions in the group not subjected to treponemal tests. The calculated figures for this group were 27 syphilitic and 25 false positive reactions.

The conclusion drawn is that in the entire series there was a total of 65 patients with probable transient or chronic false positive reactions. These made up 28 per cent. of all the reactive sera or 0.46/1,000 of all sera from pregnant women examined. The authors note that the proportion of false positive results varies greatly in different studies and depends on the frequency of syphilis in the population under study.

Leslie Wat:

Syphilis Pathology

Pathological and Anatomical Ocular Changes in a Syphilitic Foetus (Pathologisch-anatomische Augenbefunde bei fötaler Lues).

THIEL, H.-J., and HARMS, D. (1969). *Klin. Mbl. Augenheilk.*, **154**, 712. 2 figs, 17 refs

The authors describe the changes in the cornea, ciliary body, and choroid found in a syphilitic foetus in the 6th or 7th month. Spirochaetes could not be detected.

H. Lytton

Gonorrhoea

Clinical Experience with Spiramycin in the Rapid Treatment of Gonorrhoea

(Klinische Erfahrungen mit Spiramycin bei der 'Minutenbehandlung' der Gonorrhoe). HEINKE, E., SCHALLER, K. F., and SCHIRREN, H. (1969). *Dtsch. med. Wschr.*, **94**, 1182. 23 refs

The authors report their experience at the Military Hospitals in Coblenz and Hamburg in treating 252 patients with acute gonorrhoea with spiramycin. Over a period of 2 years, 176 soldiers and 76 prostitutes were investigated, treated, and followed up. Of these, 135 soldiers were given 'minute treatment' with a single dose of 2.5 g. spiramycin which was swallowed with a glass of water in the presence of the doctor or nursing sister. The remaining 41 soldiers and all the 76 women were given 'interval treatment', which consisted of two 2.5-g. doses of spiramycin taken at an interval of 3 hrs.

Of the 135 men given the 'minute treatment', 113 (83.7 per cent.) were considered to be cured. But with the 'interval treatment', using a total dose of 5 g. spiramycin, 111 (94.8 per cent. of the 117 patients were cured. There was no evidence that spiramycin in the dosage employed had any effect in masking syphilis, and details are given of two patients with a double infection. No toxic effects of spiramycin therapy were discovered.

The authors point out that 'interval treatment' of gonorrhoea with spiramycin as the routine therapy for outpatients has the same disadvantages as oral penicillin treatment and cannot be recommended. However, it can be used for inpatients—for example, those who are sensitive to penicillin or whose disease has failed to respond to penicillin.

R. D. Catterall

Asymptomatic gonorrhea

THATCHER, R. W., MCCRANEY, W. T., KELLOGG, D. S., and WHALEY, W. H. (1969). *J. Amer. med. Ass.*, **210**, 315

The authors point out that the estimated number of cases of gonorrhoea treated in the United States of America in 1968 had reached

1,500,000. They review previous studies of asymptomatic gonorrhoea. They studied 505 men without symptoms of gonorrhoea who attended for physical examination at the Atlanta Naval Air Station. In each case specimens from urethra, rectum, and pharynx were cultured on Thayer-Martin selective medium. Gonococci were identified by sugar fermentation and an immunofluorescence method; meningococci were typed by slide agglutination. Material was obtained from the urethra with a platinum loop, from the rectum and pharynx with cotton swabs.

Gonococci and meningococci were not isolated from the urethra or rectum. Meningococci were recovered from the pharynx in 74 cases (14.6 per cent.) and gonococci in one case (0.2 per cent.). Unlike the previous cases reported (Fiumara, N. J. (1967), *New Engl. J. med.*, **276**, 1248), the patient from whose pharynx gonococci were isolated had no sign or symptom of pharyngitis.

Eric Dunlop

Combined Use of Fluorescent Antibody Technique and Culture on Selective Medium for the Identification of *Neisseria gonorrhoeae*

[In English]. LIND, I. (1969). *Acta path. microbiol. scand.*, **76**, 279. 12 refs

At the State Serum Institute, Copenhagen, culture on selective media was compared with the fluorescent antibody test as means of identifying gonococci. Duplicate specimens were obtained from 815 patients (both male and female) attending a venereal disease clinic. Both pretreatment and post-treatment cultures were performed. In each case one swab was plated on a selective medium containing ristocetin, polymixin B, and nystatin; this plate was used for the routine identification of gonococci by microscopy, oxidase reaction, and fermentation tests. A second swab was plated on the same medium and on medium without added antibiotics; these plates were incubated for 18 hrs, after which smears were made and examined by a delayed fluorescent antibody (DFA) technique. For this, antigenococcal serum conjugated with fluorescein isothiocyanate was used; it was mixed with an antistaphylo-

coccal serum to block cross-reactions given by some strains of *Staphylococcus aureus*.

There was good correlation between the results of the cultural and DFA methods: 610 specimens were negative by both, 189 positive by both, eight positive by culture alone, and eight positive by DFA alone. In the case of male patients there were negligible discrepancies between the two methods. Of 456 duplicate specimens from females, only thirteen gave different results: eight were positive by culture alone and five by DFA technique alone.

In a previous study by the same author the DFA method was found superior to culture on a nonselective medium, increasing the yield of positive results by 13 per cent. With the use of a selective medium, the two methods gave equally good overall results, although a more rapid diagnosis was possible by the DFA method. In the present series only 1 strain failed to grow on the selective medium; it was detected by the DFA method on the medium without antibiotics. Gonococcal cultures were stainable by DFA method, and could be subcultured, for up to 24 hrs after application of the oxidase reagent (tetramethyl-*p*-phenylenediamine hydrochloride).

A. E. Wilkinson

Gonorrhea in the Obstetric and Gynecologic Clinic

CAVE, V. G., BLOOMFIELD, R. D., HURDLE, E. S., GORDON, E. W., and HAMMOCK, D., Jr. (1969). *J. Amer. med. Ass.*, **210**, 309

The authors studied 875 patients admitted to St. John's Episcopal Hospital of Brooklyn, New York. Smears and cultures of material from urethra, cervix, and vagina were examined in all, and from the anal canal in 153. Material for culture was obtained with a platinum loop; Peizer's medium was inoculated immediately. Gonococci were identified by 'standard methods, including sugar fermentation reactions'.

In some cases additional specimens were obtained by gentle curettage with a Novak endometrial curette. This procedure was omitted in cases in which it was known or suspected that the patient was pregnant.

72 cases of gonorrhoea were found (8.2 per cent.). 5.5 per cent. of the obstetric patients were shown to be infected, as were 11.1 per cent. of the gynaecological patients. In an additional eight cases smears gave positive results unconfirmed by culture, to make a total of 80 cases (9.1 per cent.) of diagnosed or presumptive gonorrhoea.

The endocervical curettage technique did not increase the sensitivity of the method.

Eric Dunlop

Recent Developments in the Laboratory Diagnosis of Gonococcal Infections. REYN, A. (1969). *Bull. Wld Hlth Org.*, **40**, 245. Bibl

Experiences with the Use of Sodium Ampicillin in Acute Gonococcal Infections in Vietnam. KERCULL, R. G. (1968). *Milit. Med.*, **133**, 985. 3 refs

Isolation of an Antigen of *Neisseria gonorrhoeae* involved in the Human Immune Response to Gonococcal Infection. SCHMALE, J. D., DANIELSSON, D. G., SMITH, J. F., LEE, L., and PEACOCK, W. L. Jr. (1969). *J. Bact.*, **99**, 469. 1 fig., 2 refs

Resistance of Gonococci to Penicillin (Zur Penicillinresistenz der Gonokokken). STORCK, H., and SCHWARZ-SPECK, M. (1969). *Dermatologica (Basel)*, **139**, 254. 2 figs, 5 refs

Study of Gonorrhoeal Infection treated with Demethylchlortetracycline (Ledermycin). VIMALA BAI, K. (1969). *Antiseptic*, **66**, 522. 18 refs

Gonococcal Urethritis in Males in Vietnam. MAURER, L. H., and SCHNEIDER, T. J. (1969). *J. Amer. med. Ass.*, **207**, 946. 6 refs

Credé's Method for the Prophylaxis of Gonorrhoeal Blennorrhoea in Newborn Babies [In Dutch]. TEN DOESSCHATE, J. (1968). *Ned. T. Geneesk.*, **112**, 1089

Non-gonococcal urethritis and allied conditions

Investigation of Neonatal

Conjunctivitis in the Gambia.

SOWA, S., SOWA, J., and COLLIER, L. H. (1968). *Lancet*, **2**, 243. 17 refs
A series of 297 babies was studied, 101 showing conjunctivitis in the first 2 weeks after birth. Four of these were gonococcal in origin and were almost certainly acquired from the maternal genital tract, whilst four others were caused by the TRIC agent probably acquired in the same way. The gonococcal cases responded rapidly to antibiotics, whilst the TRIC agent cases (resembling clinical trachoma) underwent spontaneous resolution.

M. A. Bedford

Particular Aspects concerning the Relationship between Inclusion Conjunctivitis and Trachoma (Quelques aspects particuliers concernant le rapport entre la conjonctivite à inclusions et le trachome). POSTIC, S. (1969). *Ann. Oculist. (Paris)*, **202**, 219. 13 figs, 14 refs

The modern tendency is to identify completely the causal agent of the two conditions. As a result of bacteriological, cytological, and histological studies of the conjunctival and urogenital mucosae marked differences are apparent and are described in detail.

John Romano

Experimental Inclusion Conjunctivitis in Man. IV. The Nature of the Antibody Response. ISA, A. M., HANNA, L., LINSKOTT, W. D., and JAWETZ, E. (1968). *J. Immunol.*, **101**, 1154. 34 refs
Serum from volunteers infected experimentally with two inclusion conjunctivitis strains was obtained at intervals and fractionated. The immunoglobulin fractions were assayed for antibody activity to TRIC agent by complement fixation and indirect fluorescent antibody tests. In most sera both the CF and FA titres increased in parallel and reached a maximum level 4 to 6 weeks after infection. The antibodies were confined primarily to the IgG immunoglobulins. A low level of antibody was found in some IgA

fractions but no antibody activity was found in the IgM fraction.

A. S. Mushin

Antibiotic Susceptibility of *Mycoplasma hominis*. HARWICK, H. J., and FEKETY, F. R., Jr. (1969). *J. clin. Path.*, **22**, 483. 9 refs

Reiter's disease and allied conditions

Overlapping Forms of Reiter's Syndrome and Psoriatic Arthropathy. DRYLL, A., KALN, M. F., SOLNICA, J., MITROVIS, D., and SÈZE, S. DE (1969). *Sem. Hôp. Paris*, **45**, 499. 17 figs, 43 refs

This long and interesting paper from the *Hôpital Lariboisière*, Paris, discusses the similarities and differences between Reiter's syndrome and psoriatic arthropathy. The authors describe in detail seven patients with Reiter's syndrome and cutaneous lesions resembling psoriasis. They also discuss their observations on 34 cases of Reiter's syndrome without cutaneous manifestations.

In a very well reasoned discussion, they consider the similarities and differences between the cutaneous manifestations of the two conditions, the type of arthropathy and the joints involved, and some aetiological factors in the two diseases.

They conclude that there are some transitional forms between Reiter's syndrome and psoriatic arthropathy, and suggest that there are cases of psoriatic arthropathy, which may be aggravated by an intercurrent infection with the agent responsible for Reiter's syndrome.

They suggest that a genetic tendency to psoriasis could predispose to infection by an arthrogenic agent and be followed by arthritis. On the other hand, an alternative explanation of the facts could be that an infection could lead to the unmasking of a gene for psoriasis and be followed by cutaneous or articular manifestations, or a combination of the two.

This paper is stimulating to read and contains many interesting observations and thoughts on a most difficult and improperly understood clinical problem.

R. D. Catterall

Clinical Trial of Lincomycin Hydrochloride in Reiter's Disease.

WHALEY, K., DOWNIE, W. W., DICK, W. C., NUKI, G., SCHOFIELD, C. B. S., and ANDERSON, J. (1969). *Brit. med. J.*, **2**, 421.

3 refs

In 1967, Mowat and others (*Brit. med. J.*, **1**, 478) reported a patient with Reiter's disease who appeared to respond to treatment with lincomycin hydrochloride by both clinical improvement and a fall in the ESR. Withdrawal of lincomycin resulted in relapse, and reintroduction of the therapy was followed by a further favourable response. In view of these observations, the present authors (writing from the Royal Infirmary and Belvidere Hospital, Glasgow) carried out a double-blind trial, using lincomycin (2 g./day) or lactose in identical capsules. 22 patients aged 18-52 years with Reiter's disease took part in a trial which lasted for 4 weeks, alternate patients being given the drug. The two groups were well matched in age, duration of disease, white cell count, ESR, and articular index. Each subject was examined before treatment and twice weekly thereafter, assessments being made of joint tenderness, and the presence of urethritis, circinate balanitis, keratoderma blennorrhagica, nail lesions, oral ulceration, or conjunctivitis was noted. Blood was taken for ESR and white cell count at each examination.

Throughout the 4 weeks of treatment no change was noted in the presence of urethritis, balanitis, conjunctivitis, or in the skin or nail lesions. White cell counts were unchanged at the end of the treatment period, but an improvement was noted in the score of joint tenderness and there was a fall in the ESR in both groups. There was, however, no significant difference between the groups in respect of joint tenderness and ESR.

The authors conclude that lincomycin is of no obvious benefit in the treatment of Reiter's disease.

C. E. Quin

Chlamydial Infection in Reiter's Syndrome.

NORTON, W. L. (1969).

Ann. Rev. Med., **20**, 351. 61 refs

Treatment of Reiter's Syndrome with Methotrexate.

JETTON, R. L., and DUNCAN, W. C. (1969). *Ann. intern. Med.*, **70**, 349. 12 refs

Antibiotics and chemotherapy

Prediction of Penicillin Allergy by Immunological Tests.

LEVINE, B. B., and ZOLOV, D. M. (1969).

J. Allergy, **43**, 231. 26 refs

At the Bellevue and University Hospitals, New York, the authors have carried out skin tests on 218 patients who were in need of penicillin therapy, but who had 'reasonably acceptable histories' of penicillin allergy in the past, with the object of detecting those who were liable to suffer severe reactions if they received the drug again. The materials used were benzylpenicilloyl polylysine (BPL) and the 'minor determinant mixture' (MDM) containing crystalline benzylpenicillin, sodium benzylpenicilloate, benzylpenicillic acid, and sodium α -benzylpenicilloylamine, the methods of preparation and use of which have been described in a previous paper (Voss *et al.*, *J. Amer. med. Ass.*, 1966, **196**, 679). Scratch tests were performed first, followed by intradermal tests only if there was no reaction to the scratch test. The criteria for reading the results are defined.

Positive skin reactions to BPL or MDM, or both, were found in 32 (15 per cent.) of the 218 patients as against 3 per cent. of a control group. All skin-test-negative patients were treated with penicillin without any attempt at desensitization; no immediate allergic reactions occurred, but one mild accelerated urticarial reaction developed after 48 hr and 6 patients developed late exanthematic reactions (not mediated by reagents) after penicillin or semisynthetic penicillin therapy. In contrast, of 10 skin-test-positive patients who were treated with gradually increasing doses of penicillin, 7 had accelerated allergic reactions. There were no adverse reactions to the skin tests. All the skin-test-negative patients had benzylpenicilloyl-specific IgM haemagglutinating antibodies in their serum and 22 per cent. had IgA antibodies in addition.

It is concluded that skin tests with BPL and MDM have a high value for predicting immediate allergic reactions to penicillin and that haemagglutinin tests are less useful for this purpose.

H. Herxheimer

Use of Doxycycline as a Preventive against Venereal Infections amongst Participants of a Naval Mission

[In Portuguese]. REGALLA, S. A., and VILLETE, C. P. (1969). *Hospital (Rio de J.)*, **76**, 931. 5 refs

Intraocular Penetration of Cephaloridine in Humans.

RILEY, F. C., BOYLE, G. L., and LEOPOLD, I. H. (1968). *Amer. J. Ophthalm.*, **66**, 1042. 29 refs

Erythromycin in the Aqueous Humour.

SHORR, N., MACK, L. W., JR., and SMITH, J. L. (1969). *Brit. J. Ophthalm.*, **53**, 331. 1 fig., 16 refs

This is to our knowledge the first reported study of the penetration of erythromycin (Ilosone) into the aqueous humour of the normal rabbit eye after oral administration. The drug is rapidly absorbed, and peak serum levels were obtained after 3 to 4 hrs. Erythromycin enters the aqueous humour at levels averaging about 20 per cent. of the serum levels. Aqueous humour levels were highest 4 to 7 hrs after administration. The drug should therefore be given every 6 hrs to maintain optimal aqueous humour levels.

Authors' summary

Public health and social aspects

Marital Status and Venereal Diseases—A Note.

RANGASWAMY, R., VENKATARATNAM, R., and VELOU, A. (1969). *Indian J. Derm. Venereol.*, **35**, 129. 4 refs

Epidemiological Aspects of Syphilis [In Portuguese].

FOGLIATTO, J., ENDRES, G., and ANGELÒ, S. R. (1969). *Hospital (Rio de J.)*, **76**, 739. 1 fig., 23 refs

Venereal Disease. FIUMARA, N. J. (1969). *Pediat. Clin. N. Amer.*, **16**, 333. 14 refs

Miscellaneous

Effects of Azathioprine ('Imuran') in Behçet's Disease. First Results of Treatment

(Les effets de l'azathioprine ('Imuran') dans la maladie de Behçet. Premiers résultats thérapeutiques). ROSSLET, E., SAUDAN, Y., and ZENKLUSEN, G. (1968). *Ophthalmologica (Basel)*, **156**, 218. 3 figs, 28 refs

Immuno-suppressive treatment with azathioprine in three cases of chronic recurrent Behçet's disease proved encouraging in ameliorating the arthritic, mucosal, and ocular symptoms. The duration of treatment required is still speculative and the toxicity of the drug is emphasized.

G. L. Cantrell

New Therapeutic Attempts in Behçet's Disease [In Japanese with English Summary]. FUTAGAMI, T., SAITO, K., SAITO, M., SANEFUJI, M., and FUJIOKA, K. (1969). *Rinsho Ganka*, **23**, 557. 3 figs, 6 refs

Based on the possible immunological process in Behçet's disease, thymectomy was conducted in one patient and radiation of the spleen in twelve adult patients.

Thymectomy resulted in no clinically apparent improvement in the

ocular findings. While no improvement resulted from repeated irradiation to the spleen in 4 cases, favourable reactions such as disappearance of erythema, febrile attacks, or amelioration of ocular inflammation of various degrees took place in the remaining 8 subjects.

J. Tsutsui

Behçet's Disease (La maladie de Behçet). BENGISU, N. (1969). *Ann. Oculist. (Paris)*, **202**, 165. 73 refs
A general review. The involvement of the central nervous system, unknown aetiology, and poor prognosis are stressed.

John Romano

Behçet's Triple Symptom Complex. HAKENDORF, A. J. (1968). *Aust. J. Derm.*, **9**, 354. 2 figs, 9 refs

Behçet's Disease associated with a 'String of Pearls' [In Japanese with English Summary]. INQUE, Y. (1969). *Rinsho Ganka*, **23**, 248. 9 figs, 13 refs

Squamous Cell Carcinoma of the Penis. FEGEN, P., and PERSKY, L. (1969). *Arch. Surg.*, **99**, 177. 2 figs, 10 refs

Priapism as the Initial Manifestation of Renal Carcinoma. WEISMAN, E. B.,

HARDISON, J. E., and BURNS, J. B. (1969). *Arch. intern. Med.*, **123**, 58. 2 figs, 6 refs

Giant Condyloma Acuminatum involving Vulva and Rectum. JUDGE, J. R. (1969). *Arch. Path.*, **88**, 46. 4 figs, 8 refs

Large Condyloma of the Vagina. EVANS, R. L., and DISCHE, F. E. (1969). *J. Obstet. Gynaec. Brit. Cweth*, **76**, 757. 3 figs, 4 refs

Thiotepa in Management of Intraurethral Condylomata Acuminata. HALVERSTADT, D. B., and PARRY, W. L. (1969). *J. Urol. (Baltimore)*, **101**, 729. 13 refs

Herpes Simplex. FRIEDRICH, E. R., COLE, W., and MIDDELKAMP, J. N. (1969). *Amer. J. Obstet. Gynec.*, **104**, 758. 22 figs, 50 refs

Lymphogranuloma Venereum. II. Characterization of Some recently isolated Strains. SCHACHTER, J., and MEYER, K. F. (1969). *J. Bact.*, **99**, 636. 9 refs

Primary Irritant Dermatitis of the Scrotum due to Hexachlorophene. BAKER, H., IVE, F. A., and LLOYD, M. J. (1969). *Arch. Derm.*, **99**, 693. 1 fig., 6 refs